becomes translucent first, the preparation at this particular stage may then be put into the pure castor oil until thoroughly penetrated and subsequently drained and shellaced. The castor oil may be used repeatedly and costs only one-half as much as glycerin. Some shrinkage occurs, the dry specimen losing about one-fourth of its volume after it has left the liquid.

DESCRIPTION OF PLATE.

All of the figures are at about the natural size of the dry specimens and were prepared according to the castor oil method.

The transections show the differentiation of the alba and cinerea.

Fig. 1 and 6 are from the sheep, *Ovis aries.* Fig. 2 and 5 are from the dog, *Canis familiaris.* Fig. 3 is the mesal view of the right hemicerebrum of *Macacus rhesus.* Fig. 4 is the lateral aspect of the right hemicerebrum of *Macacus cynomolgus.*

PATHOLOGICAL.

A Case with Aphasic Symptoms: Hemianopsia, Amnesic Color-blindness and Phrenoplegia.—(Bleuler, Archiv. f. Psychiatrie u. Nervenkrank, Vol. xxv., p. 32, 1893).

A synopsis of this case may be given as follows:

Clinical.—Right side hemiplegia. Loss of sense of position of right arm. Phrenoplegia of the same. Lessening of the temperature sense of the right side. Right side hemianopsia. Amnesic color-blindness. Alexia. Amnesic aphasia.

Pathological.—Softening of the left island, the greater portion of both central convolutions and the underlying medullary substance and adjacent portions.

The patient, a laborer, 66 years old, a vagrant, showed, on admission to the institution, uncertain movements of flexion and extension of the right hand and inability to use the finger joints, the result of an improperly treated fracture some years before. He denied syphilis, had been alcoholic and shortly after admission he had an epileptiform attack. Psychically, he was slightly demented. Physically, strength of extremities good; no paresis, tremor of fingers, athetoid movements of fingers of right hand, face movements equal on both sides, pupils normal, no hemianopsia.

Three months later, a stroke of apoplexy, with entire right side hemiplegia, disturbance of speech hemianopsia, irrgeular pupils, first one pupil was larger, then the other. Consciousness lost and partly regained alternately. Later on, psychical functions largely regained. A month later, patient's mind is fairly clear, understands well, answers incorrectly because of inability to find the right words; complete alexia; right side hemiplegia. Cutaneous sensibility of both arms good, considerably blunted of right leg. Disturbance of speech considerably ameliorated.

Five months after the stroke, evidences of dementia well marked. Sense of touch and pain quite normal, except on dorsal surface of both feet. Loss of temperature sense on entire right side. Muscular sense and position sense lost on right side.

A few months later there was disturbance of the pupillary reaction. Inability to distinguish colors. Aphasia not so marked. He could not speak quite distinctly. Right knee reflex enormously exaggerated. Sixteen months after the stroke death followed, as the result of dry gangrene of the thigh.

Post mortem, fifteen hours after death, showed weight of brain 1220 grm. In the middle of the left convexity, a flabby, yellowish, brown area of softening. This involved a destruction of the central convolutions. Softening of a portion of the Island of Reil about one cm. long, and a like amount of the operculum and temporal lobes. The supra marginal convolution and both of the adjacent parietal convolutions were also considerably involved. The tractus opticus on the border of the softened area is brownish, not distinctly diminished in size. The entire orbital surface of the frontal lobes markedly atrophied on left side. Blood vessels at the base atheromatous. arteries of the fossa of Sylvius thrombotic, but the lumen of the vessels is not entirely obliterated.

The brain was imbedded in gelatin, according to Burckhart's method, and then cut with the Gudden microtome in ten frontal sections. These sections showed atrophy of the cortex. The central ganglia, internal and external capsule, claustrum and island could not be made out. The superior temporal convolution showed atrophy in a much higher degree than did the other portions of the brain. In the superior vermis of the cerebellum and the adjacent portion of the cerebellar hemisphere was an area of softening about two ctm. long and one ctm. wide.

Microscopically, there was found a high grade of atheroma of the arteries of the fossa of the Sylvius and the smaller arteries of the brain substance. The area of softening was a typical picture of softening of ancient date. In Broca's convolution, there were a large number of small areas of softening. The left superior temporal convolution showed a marked diminution of nerve elements. Corpus callosum showed diffuse atrophy. Left internal capsule degenerated *in toto*. The left tractus opticus showed partial and diffuse degeneration. The corpus geniculatum externum showed only a few normal ganglion cells. Degeneration of the right lateral pyramidal tract was complete.

The author remarks that the extensive area of degeneration and softening makes the case for localization purposes difficult. The deficiency of kinæsthetic sensation which the patient had in the right arm and which was manifest by loss of muscle innervation the writer calls phrenoplegia, after Nothuagel, who located the cortical defect on which this is dependent in the temporal lobes.

The hemianopsia was remarkable, in so much as the patient was not conscious of it in spite of the fact that the cortex of left occipital lobe was preserved. Explanation of the amnesic color-blindness that the patient had was not possible, as both cortical visual areas were intact and the commissure between them and in the vicinity of the radiation of the posterior balken fibres in the left hemisphere was unbroken. The connection between the centres of ideas or conceptions, and cortical visual areas was therefore not disturbed.

Although the patient had complete alexia, he knew when he saw his name written that it was meant to represent him without being at all able to read the letters. In spite of the fact that there was destruction of the Island Reil, the patient was able to recite, to repeat and to say unknown words in strange languages and to sing melodies. The frequency of amnesic aphasia in comparison with ataxia aphasia is dependent upon the same factors that make motor-paralysis more frequent than sensory. Anatomico-physiologically, it is known that each centripetal function is one that advances from a certain definite locality to a general compiling or collecting organ. Every centrifugal function indicates a conduction forth of an excitation from a general centre to a special location or place.

The direction in the first instance, is in the central organism manifold and comparatively diffused; the latter a simple, and distinctly exact, and for this reason more sensitive towards lesions, or expressed psychologically, the path of these associations from special to general actions is the more frequently taken and more easily definable; the path from the general to special tendencies the more rare and more difficult to diagnose, which by disturbances becomes much more hard to follow and to find.

The details of the case are in accord with the well known facts that the automatic functions of the brain are lost before the conscious.

As an illustration of how in certain cases the automatic functions may be preponderatingly disturbed, the writer cites the following case from Deleuze, who wrote on animal magnetism: A woman had a right sided hemiplegia. Intelligence was entirely preserved, but the disturbance of speech manifested itself in complete akataphasia and agrammatism. J. C.

Bacteriological Examination of the Spinal Cord and Nerves in Syringamyelia.—Prof. Pitres and Dr. Sabrazes (*Arch. Clin. de Bordeaux*, May, 1893; *The Medical Week*, Paris, September 8, 1893), controvert the theory that syringamyelia is a form of leprosy, by a bacteriological examination, in none of which was Hansen's bacillus (the bacillus of leprosy) found. In the first case, a piece of nerve excised from an area of diminished sensibility, under the microscope showed the ordinary appearance of neuritis, but no bacilli. In the second case, an examination of the cord, showing typical appearances of syringamyelia, failed to show bacilli. The cord in the third case, likewise typical, no trace of bacilli could be detected. The authors conclude, from the results of these examinations, that an analogy may, and does exist, in some cases, between the symptoms of these affections, other than that they are two distinct morbid entities. F. P. N.

Problems in the Pathology and Treatment of Inebriety, or Rational Cure of the Drink Habit.—Dr. J. G. Reed, Cincinnati (*Western Medical Reporter*, January, 1893).

Alcoholic craving comes from shock, produced by a morbid chemical process of nutrition, tending to destroy